have to suffice. The concept of force and Newton's law (with an appendix on special relativity theory). Statics of constraint systems with a finite number of degrees of freedom (Lagrange's liberation principle). Statics of systems with infinitely many degrees of freedom (Theory of thin shells and plates. Foundations of the theory of elasticity. Viscous fluids and gases). Basic principles of kinetics (Vortex theorems of Lagrange and Helmholtz). Holonomic systems of a finite number of degrees of freedom—Lagrange's equations (Dirichlet's theorem on stability). Mathematical elaboration (Canonical equations. Canonical transformations). Minimum principles (Minimum principles of elasticity). The rigid body in space. Nonholonomic systems of a finite number of degrees of freedom.

W. PRAGER

Algebraic curves. By R. J. Walker. Princeton University Press, 1950. 10+201 pp. $4.00.

Modern algebraic geometry is one of the very active fields of mathematical research and there is a genuine need for a textbook on the elements of the subject. Up to now there have been available in English only sets of lecture notes, which while the work of the leaders in the field, themselves testify to the need for a more formal and elaborate publication. The volume under view is clearly an attempt to meet this need, and while this reviewer does not believe that it is wholly satisfactory, the book is a considerable contribution to the problem.

The first two chapters of the book are devoted to algebraic and geometric preliminaries. It is in the third chapter that the author begins the study of his subject matter, algebraic curves over an algebraically closed field of characteristic zero, starting with a discussion of multiple points of such curves. A weak form of Bezout's theorem is derived and used to relate the order of a curve with the multiplicities of its singular points. The chapter also contains a proof of the theorem on reduction of singularities, followed by a sketchy treatment of neighboring points. The first part of chapter four is devoted to formal power series, leading to the notion of a place of a curve. The basic algebraic result here, the algebraic closure of a certain fractional power series field, is handled in great detail. This material is then applied to a formulation and proof of Bezout's theorem and to the derivation of some of Plücker's formulas. The chapter ends with a proof of a simple case of Nöther's $AF+BG$ theorem. Chapter five opens with more algebraic material, this time on ideals and field extensions. The field of rational functions on a curve is discussed and used to obtain satisfactory formulations of